

## **Long Distance Travel by Low Income Households**

William J. Mallett

Bureau of Transportation Statistics  
U.S. Department of Transportation  
400 7<sup>th</sup> Street, SW  
Room 3430  
Washington, DC 20590  
202-366-6663  
[william.mallett@bts.gov](mailto:william.mallett@bts.gov)

Local transportation mobility problems among low-income households are relatively well researched (Rosenbloom, 1995a, 1995b; Murakami and Young, 1997), but much less is known about intercity (or long distance) travel by these households. While not as important as daily local travel, long distance trips are often necessary to visit distant family and friends -- sometimes to take care of them (Wagner, 1997) -- to attend family functions such as weddings and funerals, and for rest and relaxation, sightseeing, and other personal recreational and developmental needs. Such travel is particularly acute around the Thanksgiving, Christmas, and New Year's holidays (USDOT BTS, 1997). Business travel is another important component of long distance travel.

The dearth of research on long distance travel derives in part from lack of data, a problem overcome with results from the 1995 American Travel Survey. Conducted for the Bureau of Transportation Statistics by the Bureau of the Census, the ATS collected information on the origin, destination, volume, and characteristics of long-distance travel from approximately 80,000 households in the United States in 1995. This paper examines the long distance travel behavior of low-income households in comparison with higher income households using the American Travel Survey. The paper begins with a description of how households were classified into income groups and the demographic and geographical characteristics of low-income people. This is followed by an analysis of the travel behavior of individuals from low income households. Because a disproportionate share of people in low-income households are children and the elderly (65 or older) and these groups travel less than adults under 65, the paper includes a separate examination of adults under 65, adults 65 and older, and children.

### Definition and Characteristics of the Low Income Population

For the purpose of this paper the population was divided into four income/household size groups -- low, medium-low, medium-high, and high income (see table 1). The definition of a low income household follows as close to the Census Bureau's definition of poverty as the ATS income categories allow.<sup>1</sup> Low income households are defined as 1-2 person households earning under \$10,000, 3-4 persons earning under \$15,000, and 5 and more person households earning under \$25,000.<sup>2</sup> Using this definition yields a low-income population of about 39 million people from the ATS demographic file or about 15 percent of the total U.S. population, very close to the Census Bureau's 1995 poverty population estimate of 36 million people or 14 percent of the population (US DOC, 1998, 477). The remaining 85 percent of the ATS population was divided into 22 percent medium-low income households, 40 percent medium-high income, and 23 percent high income households.

Of the 39 million people in low income households, 37 percent were under 18 (a rate of 20 percent of all children), and another 16 percent were 65 or older (also a rate of 20 percent). The remaining 47 percent of the low-income population were between 18 and 64 (a rate of 11 percent). Females were somewhat more likely to be poorer than males making up 57 percent of the low income population.

About one-third of non-Hispanic blacks were in low income households, the highest rate of any racial or ethnic group, followed by Hispanics (30 percent), non-Hispanic American Indians,

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<sup>1</sup>The definition of low income households is based on the Census Bureau's definition of poverty, a function of money income before tax and household size. Excluded from income are capital gains, noncash benefits such as employer-provided health insurance, food stamps, Medicaid, Medicare, and public housing.

<sup>2</sup>This was also done by Murakami and Young (1997) to define low income households, but the categories are not

Eskimos, and Aleuts (23 percent), non-Hispanic Asian and Pacific Islanders (13 percent), and non-Hispanic whites (9 percent). Nevertheless, 45 percent of the low-income population were non-Hispanic white, followed by 28 percent non-Hispanic black, 22 percent Hispanic, and only 3 percent non-Hispanic Asian and Pacific Islander, and 1 percent American Indian.

By household type, single female headed households with children under 18 were the most likely to be classified as low income with 40 percent. By contrast, only 12 percent of married couple households with children under 18 were low income. Female and male householders in nonfamily households also has high rates of low income at 37 and 32 percent respectively. However, married couples with children made up 32 percent of the poor population in 1995, more than the 24 percent of female householder with children. Female householders in non-family households made up another 15 percent of the poverty population.

The south had the highest low income rate in 1995 at 18 percent followed by the West (15 percent), Midwest (12 percent) and Northeast (11 percent). Consequently, 44 percent of the low income population resided in the South, followed by 22 percent in the West, 19 percent in the Midwest, and 14 percent in the Northeast. The low income rate in large metropolitan areas (with a population 250,000 or more) was only 13 percent compared with 19 percent, in small metro/non-metro areas. Nevertheless, nearly 60 percent of the low income population lived in large metros in 1995.

#### Long Distance Mobility of the Low Income

People in low income households made less than half the annual number of long distance trips

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directly comparable because of different income categories used in the two surveys.

per person than the population as a whole (a trip is defined as a roundtrip to a destination at least 100 miles or more from home). On average, low income people made 1.6 long distance person trips in 1995 compared with 3.9 trips for the entire population. The non-low income population as a whole made 4.4 trips annually, with persons in households with medium-low income making 2.6 trips a year, medium-high income 4.2 trips, and high income 6.3 trips.

A large part of the difference between the income groups results from the much higher proportion of non-travelers among the poor (see figure 1). About two-thirds of low-income people did not travel long distance in 1995, compared with about half of medium-low, a third of medium-high, and only a fifth of high income residents. The difference in per capita trips among travelers of different income groups is therefore much lower than among all people in each income group. The average number of trips *per traveler* in low income households was 4.6 compared with 5.0 by medium-low, 6.2 by medium-high, and 7.9 by high income residents.

In terms of rates of non-travelers among low-income households, northeastern blacks living in large metropolitan areas appear to be the most immobile, especially parents and children living in single parent family households. Interestingly, single parent families with children headed by males are less likely to travel long distance than those headed by a single female. Almost 80 percent of non-Hispanic blacks in low-income households did not make a single long distance trip in 1995 compared with 69 percent of Asians, 65 percent of Hispanics, and 57 percent of non-Hispanic whites. Similarly, almost 80 percent of low income single parent families headed by a male did not travel compared with 74 percent of ones headed by a female, 61 percent of married couple households, and 58 percent of non-family households. People in low income households

in the Northeast had the highest proportion of non-travelers (70 percent) compared with 66 percent in the South, 63 percent in the West, and 62 percent in the Midwest. About 70 percent of children in low income households made no long distance trip in 1995, compared with 66 percent of those 65 and older, and 56 percent of those 18-24 (the lowest of any age group). There was no difference in the rate of nontravelers among males and females.

About 30 percent of the low-income population live in a household without a vehicle, and, as with local travel, vehicle availability appears to be an important determinant of long distance travel. The trip rate per person of low income households without a vehicle was about one-third that of people in low income households with one vehicle, and about a quarter that of people in such households with 2 or more vehicles. All households without a vehicle traveled less than households in the same income group with 1 or more vehicle. However, being vehicleless appears to have more of an effect on the long distance mobility of low-income households than vehicleless households in other income groups. For instance, vehicleless households in both medium income groups made about three-quarters the number of trips as households with one vehicle and about two-thirds the number of people in households with 2 or more vehicles.

#### Low Income Adults Under 65

The wide disparity between low and higher income households cannot be explained by the relatively large number of children and elderly in the low-income category. Excluding children and the elderly lowers only slightly the disparity between income groups in terms of per capita trip making. For instance, the difference between low and medium low income persons drops from 40 percent fewer trips including people of all ages to 33 percent fewer when children and

the elderly are excluded. Low-income adults 18-64 made 2.1 person trips annually compared with 3.1 for medium-low income people in that age category.

Among low income adults the highest mobility is found among 18 to 24 year olds followed by 25 to 34 year olds, an age profile very different from that of high income individuals for who travel peaks between the ages of 45 and 54 (see figure 2). Excluding students 18 or older, moreover, does not change this finding. Indeed, excluding students 18 or older raises the peak for those aged 18 to 24. Consequently, the smallest difference between income groups is with 18 to 24 year olds, and the greatest difference is with 45 to 54 year olds. As with the population as a whole, low income adults under 65 without a vehicle in the household made the fewest trips, 0.9 per person annually.

### *Purpose*

All trip purposes increase with income group, but business and leisure trips are much more sensitive to income than those to visit friends and relatives (VFR) or personal business (see figure 3). People in high income households made about twice the number of VFR and personal business trips per person than people in low-income trips, but 6 times the number of business and leisure trips. The differences between the two medium-income groups and the low income group were most pronounced with leisure travel and least pronounced with personal business. About 80 percent of the difference between the low and medium-low income groups was evenly split between VFR and leisure trips. Most of the rest of the difference was accounted for by business travel. There was little difference with personal business. As we move into medium-high and high income categories the difference declines with VFR, but continues with leisure. Business

travel increases as income increases, but the biggest per capita increase is between high and medium-high, despite a relatively large jump between the two medium income groups.

Consequently, when traveling long distance low income adults under 65 more often travel intercity to visit friends and relatives and for personal business than other income groups. About 40 percent of their trips were for visiting friends and relatives and 21 percent for personal business with only 20 percent for business and 20 percent for leisure. People in high income households made only 25 percent friends and relatives and 11 percent for personal business, with much larger shares for business (32 percent) and leisure (31 percent). People in medium-low income households made about the same share of business trips and VFR as low income, but a larger share for leisure and a correspondingly lower share of personal business.

### *Mode*

Although personal-use vehicles (PUV) are the dominant long distance transportation mode for all income groups, low income adults were more car dependent than other income groups. People in low income households made 87 percent of their trips by PUV, compared with about 84 percent by medium-low and medium-high, and only 69 percent by high income persons. Low income adults under 65 made 1.8 vehicle trips compared with 2.6 for medium low, 4.0 for medium high, and 5.1 for high income individuals. Low income adults under 65 made only 0.2 trips annually by airplane (9 percent of all trips), compared with 2.1 trips by high income people (30 percent of trips). People in medium-low income households made twice the number of air trips per person than low-income individuals (0.4 trips) and medium-high income more than 3 times (0.7 trips), 13 and 15 percent of all trips respectively.



Including just land modes (that is excluding air and water transportation), however, reveals that low income individuals are slightly more dependent on modes other than personal use vehicles compared with other income groups. Low income people made 95 percent of their land-based trips by PUV and 5 percent by bus and train, whereas high income individuals made 98 percent by PUV and 2 percent by bus and train. Bus and train usage is low for all groups but the lower income groups (both low and medium-low income) are relatively more dependent on intercity buses than other groups. These two income groups made two to three times the number of intercity bus trips as medium-high and high income groups (see figure 4). Charter or tour buses were used to the same extent by all income groups (as measured by per capita trips), a level above the usage of intercity buses. Low-income individuals, in fact, made twice the number of charter or tour bus trips as intercity bus trips. Trains appear to be more the domain of those with high income, with a much lower usage and little difference among the rest of the population.

#### *Travel Distance and Travel Stay*

As well as traveling less often, low income individuals also travel shorter distances than people in higher income groups. The average (mean) trip roundtrip distance among low income adults under 65 was 650 miles compared with 990 miles by high income people. Most of this is related to the fact that the low income individuals travel much less often by air because the average long distance trip (excluding air) by all income groups is about the same (approximately 550 miles). Because they travel less often and less by air low income individuals travel less miles overall than other groups: low-income people traveled about 1,350 miles in 1995 compared with 2,300

miles by medium-low, 3,650 miles by medium high, and 7,250 miles by those with high incomes.

Low income individuals stay longer than other groups when they travel long distance, however. Low income people averaged 5.2 nights per trip compared with 3.9 night for high income persons. Longer stays are associated to some extent with the fact that low income individuals travel more often to visit friends and relatives, trips that tend to be longer in duration, and less on business, trips that tend to be short. However, the low income stay longer with friends and relatives and when staying in hotel's, motel's or resorts. For the latter low income travelers stayed an average of 3.4 nights compared with 3.1 by medium-low and medium-high income travelers, and 3.2 nights by high income travelers.

#### Low Income Elderly

For the population as a whole, long distance travel begins to decline in people's mid- to late-50s, and the elderly (defined here as people 65 and over) have the lowest long distance mobility except for children. The low income elderly, in particular, travel long distance very little but the differences between income groups do not appear to be greater than for adults under 65. Indeed, the absolute differences in per capita trip making between income groups decline with age over 65, presumably as physical and mental frailty begin to outweigh income effects (see figure 5). The low-income elderly averaged 1.4 long distance trip, compared with 2.5 trips by medium-low, 4.0 by medium-high, and 4.5 by the high income elderly. The difference between those 65 and over and those aged 18-64 population among the low income population was 35 percent, a difference higher than among the medium income groups but lower than the high income group.

Although high income groups often stop traveling on business when they retire, excluding business trips does not alter this pattern.

The low income elderly have the second lowest rate of long distance trips after low income children. However, the number of trips made per capita drops with age over 65 from 1.8 for people aged between 65 and 74 to 1.2 for those between 75 and 84, and only 0.5 trips per capita for those 85 and older, a pattern of decline that is even stronger for higher income groups. Nevertheless, high income adults 85 and older still made nearly 2 trips a year on average in 1995 (figure 5).

Low income individuals 65 and over generally relied less on PUVs as a proportion of all trips and more on airplane, bus, and train. Even though the number of trips was less for this age group, the share of bus trips increased, from 3.4 percent for adults under 65 to 10.7 percent for adults 65 and older. Both intercity bus and charter and tour bus usage is higher but the latter increases by the most to nearly 8 percent of all trips.

### Low Income Children

Low income children traveled the least of any group, except the very old (85 and older) averaging just over 1 trip per year each. Children from high income households by contrast made 3.7 trips on average, with medium-high income children completing 2.6 trips and medium-low income children completing 1.8 trips a year. Low income children made virtually all of their trips by PUV (92 percent), with fewer school bus trips as children from other income groups. Most travel by low-income children was to visit friends and relatives and personal business, with

very little travel for leisure. On average low income children made only 0.2 trips a year for leisure, or one trip every five years.

### Conclusion

This research shows that the ability of people in low income households to travel long distance is quite limited. Perhaps most startling is the finding that about two-thirds of people in low income households did not make a single long distance trip in 1995, a proportion that rises to 4 out of 5 from some sub-groups of the low income population such as non-Hispanic blacks. As with local travel, one of the most important limiting factors is the availability of a vehicle, especially as air travel appears to be beyond the means of most poor families. People in low income households without a vehicle made one-third the number of trips made by such households with a vehicle. Although bus and train travel is most important for low income individuals, these modes are still rarely used to travel long distance. Indeed, air travel accounts for about twice the share of trips of bus and train combined for such households (9 percent air and 4 percent bus and train).

As we might expect, when low income individuals travel they do it to visit friends and relatives and on personal business. They much more rarely travel for leisure or on business. Of course, low income individuals are unlikely to have jobs that require business travel, and the low level of leisure travel is more likely due to the expense of accommodations and restaurant food as it is the cost of transportation. However, low income people travel half as often to visit friends and relatives (and for personal business) suggesting that they encounter significant impediments, such as cost and inconvenience, in accessing transportation.

## References

Murakami, E. and J. Young, "Daily Travel by Persons with Low Income." Paper presented at the NPTS Symposium, Bethesda, MD, October 29-31.

Rosenbloom, S. 1995a. "Travel by Women." *1990 Nationwide Personal Transportation Survey, Demographic Special Reports*. Washington, DC: Federal Highway Administration.

Rosenbloom, S. 1995b. "Travel by the Elderly." *1990 Nationwide Personal Transportation Survey, Demographic Special Reports*. Washington, DC: Federal Highway Administration.

U.S. Department of Commerce, Bureau of the Census, (USDOC). 1998. *Statistical Abstract of the United States: 1998*. Washington, DC.

U.S. Department of Transportation, Bureau of Transportation Statistics (USDOT, BTS). 1997. *Home for the Holidays*. Washington, DC.

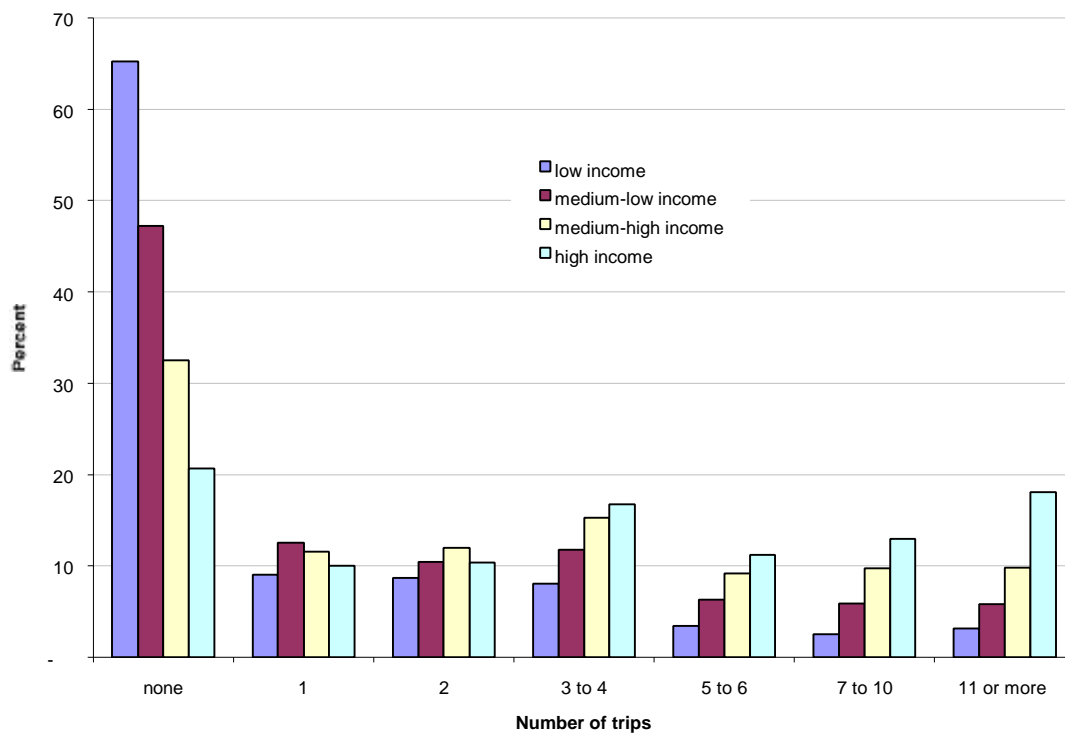
U.S. Department of Transportation, Bureau of Transportation Statistics (USDOT, BTS). 1998. *Transportation Statistics Annual Report, 1998*. Washington, DC.

Wagner, D.L. 1997. *Caring Across the Miles: Findings of a Survey of Long Distance Caregivers*. Washington, DC, National Council on the Aging.

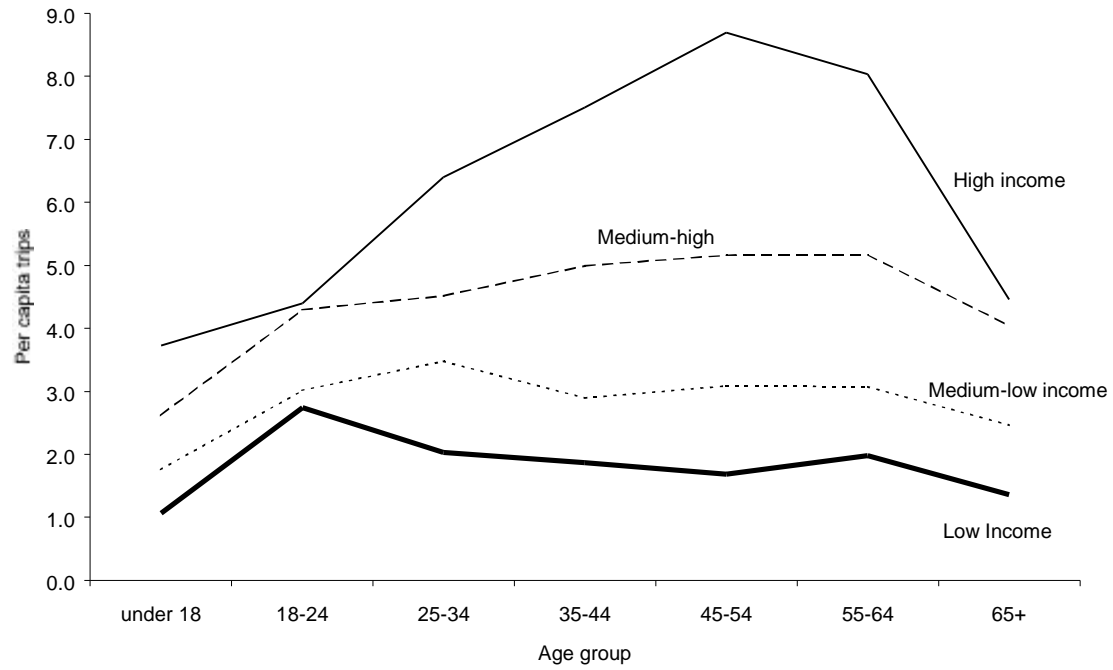
**Table 1**  
**Classification of Households by Household Income and Size, 1995**

<b>Number of persons</b>	<b>Household Income</b>			
	Low	Medium-low	Medium-high	High
1 to 2	under \$10,000	\$10,000 to \$24,999	\$25,000 to \$49,999	\$50,000 and over
3 to 4	under \$15,000	\$15,000 to \$29,999	\$30,000 to \$59,999	\$60,000 and over
5+	under \$25,000	\$25,000 to \$39,999	\$40,000 to \$74,999	\$75,000 and over

**Figure 1. Trip distribution by income group, 1995 (percent)**

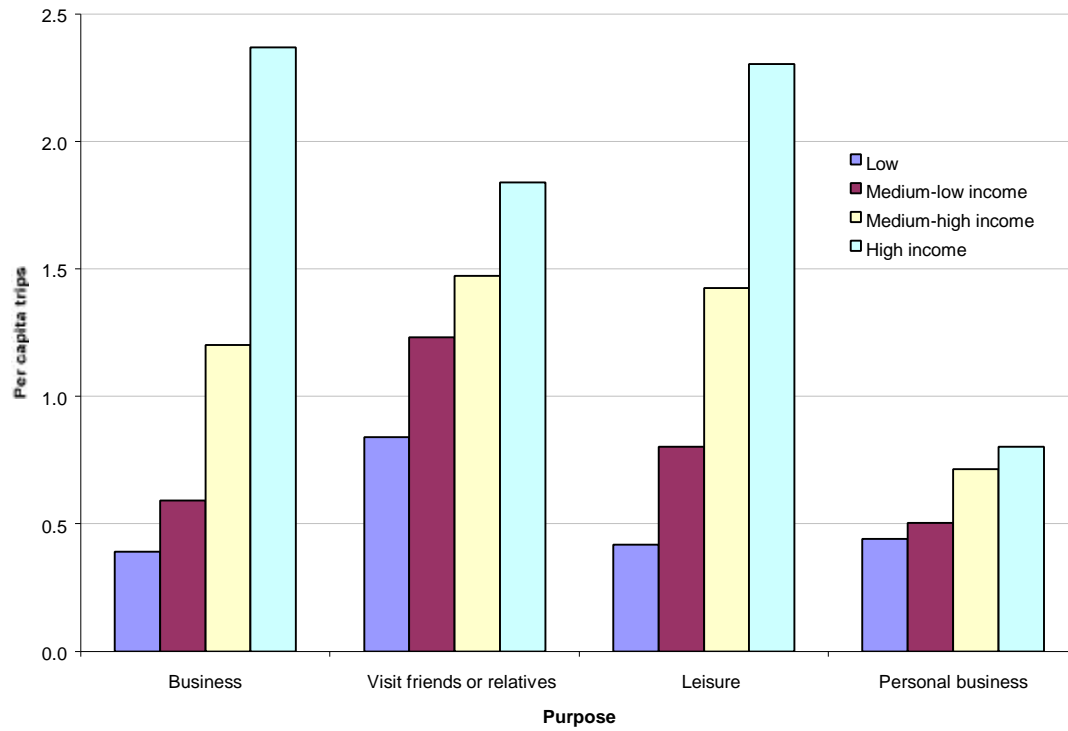


**Figure 2. Per capita trip making by income and age, 1995**

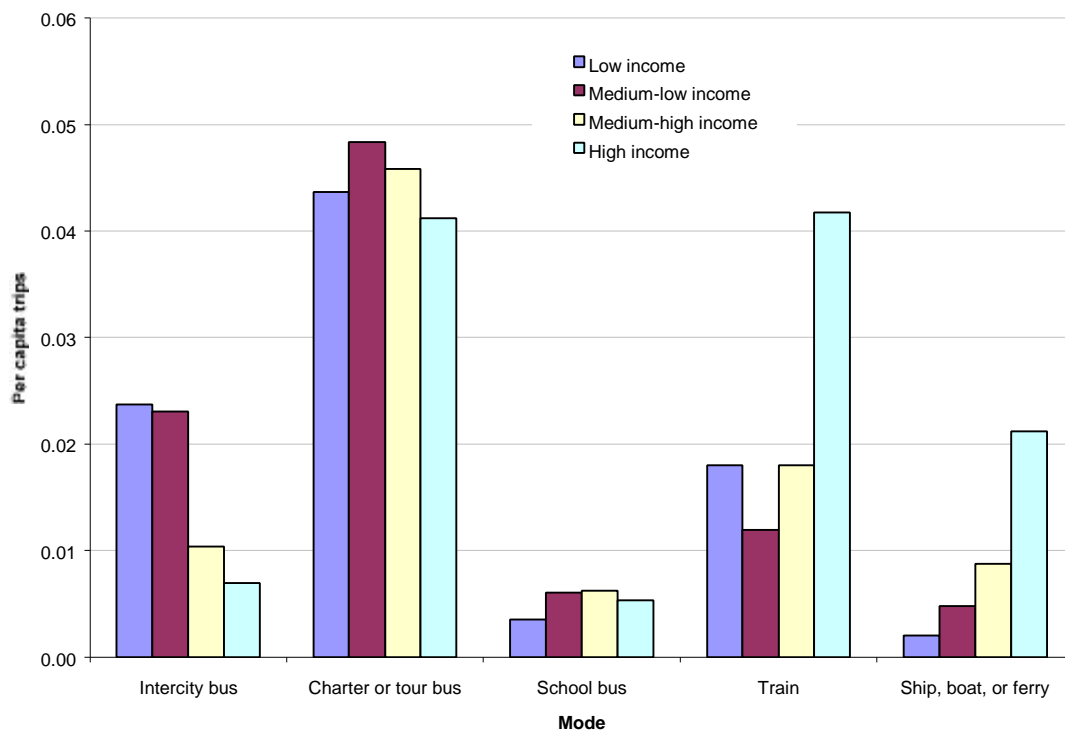




**Figure 3. Per capita trips by adults under 65 by income and purpose, 1995**



**Figure 4. Per capita trips by adults under65 by income and selected mode, 1995**



**Figure 5. Per capita trips by adults 65 and over by income, 1995**

